

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-16 (canceled).

17. (New) A method for monitoring a distributed system having a plurality of user units that are connected by one bus system, comprising:

 providing at least a selected number of the user units as monitoring user units;

 filing process data of at least one monitored user unit in data areas of memory units of the bus system, wherein the monitoring user units have access to the data areas of the memory units; and

 evaluating the process data by the monitoring user units.

18. (New) The method as recited in Claim 17, wherein each of the data areas is uniquely allocated to a corresponding monitored user unit.

19. (New) The method as recited in Claim 18, wherein the corresponding monitored user unit does not have access to the uniquely allocated data area.

20. (New) The method as recited in Claim 17, wherein the data areas are distributed over at least two memory units.

21. (New) The method as recited in Claim 17, wherein at least a part of the data areas is provided simultaneously in each memory unit.

22. (New) The method as recited in Claim 17, wherein each monitoring user unit generates outcome data as a function of the evaluation of the process data of the at least one monitored user unit.

23. (New) The method as recited in Claim 22, wherein the outcome data include a fault information.

24. (New) The method as recited in Claim 22, wherein the outcome data include information on responsive fault measures.

25. (New) The method as recited in Claim 22, wherein the outcome data are transmitted via the one bus system to a communications controller of the of the monitored user unit.

26. (New) The method as recited in Claim 22, wherein the outcome data are filed in the data areas.

27. (New) The method as recited in Claim 18, wherein the outcome data are allocated to each monitored user unit and filed in the data areas allocated to the corresponding monitored user units.

28. (New) The method as recited in Claim 22, wherein the outcome data are allocated to each monitored user unit and filed in the data areas allocated to the corresponding monitored user units.

29. (New) The method as recited in Claim 17, wherein, as a part of the monitoring, a weighted fault determination is made, and wherein the weighted fault determination is made based on an n of m outcome data, m being the number of monitoring user units for a selected monitored user unit, $m > 2$, and $n > m/2$.

30. (New) An arrangement for monitoring a distributed system having a plurality of users that are connected by one bus system, at least a selected number of the users being provided as monitoring users, comprising:

first arrangement for filing process data of at least one monitored user in data areas of memory units of the bus system; and

second arrangement provided in each of the monitoring users, wherein the second arrangement of each monitoring user has access to the data areas of the memory units of the bus system, and wherein the second arrangement of each monitoring user evaluates the process data of the at least one monitored user.

31. (New) The device as recited in Claim 30, wherein each of the memory units is allocated to a corresponding monitoring user.

32. (New) A distributed system, comprising:

a bus system;

a plurality of users that are connected by the bus system,

wherein at least a selected number of the users are provided as monitoring users; and

first arrangement for filing process data of at least one monitored user in data areas of memory units of the bus system;

wherein each of the monitoring users has a second arrangement, and wherein the second arrangement of each monitoring user has access to the data areas of the memory units of the bus system, and wherein the second arrangement

of each monitoring user evaluates the process data of the at least one monitored user.